UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/618,433	07/10/2003	Noburnitsu Takaoka	16869N-085000US	5607

20350 7590 08/27/2008

TOWNSEND AND TOWNSEND AND CREW, LLP
TWO EMBARCADERO CENTER
EIGHTH FLOOR
SAN FRANCISCO, CA 94111-3834

EXAMINER	
CHEA, PHILIP J	

ART UNIT	PAPER NUMBER
2153	

MAIL DATE	DELIVERY MODE
08/27/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/618,433	TAKAOKA ET AL.	
	Examiner	Art Unit	
	PHILIP J. CHEA	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 August 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-8* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to an Amendment filed June 10, 2008. Claims 1-8 are currently pending. Any rejection not set forth below has been overcome by the current Amendment.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Axberg et al. (US 6,009,466), herein referred to as Axberg, and further in view of McIntyre et al. (US 6,229,538).

As per claims 1,8, Axberg discloses a computer management system (see management program - Axberg abstract) having an object computer (see host computer - Axberg column 5 lines 39-40), a storage system (see storage management - Axberg abstract) in which data to be communicated to the object computer is stored (see storage devices - Axberg column 5 lines 18-20), and a management computer (see Axberg figure 1 block 110) that manages the storage system and object (see Axberg abstract), wherein:

said storage system comprises an acquisition unit that acquires first connection information which contains a communication port identifier of said object computer, and a communication port identifier assigned to the communication port of said storage system, from said object computer (see column 9, lines 13-25, *showing a connection class that is used to provide information about port identifiers connecting a host controller (i.e. object computer) to a port of a disk (storage), example Port 4 of Controller A is connected to Port1 of Disk3, also see column 4, lines 35-39 describing the host computer and how they contain a controller to connect to the storage units, wherein the storage system is considered the hosts and storage devices (see Fig. 1 [111-113] and [120-129])*); and

a communication unit that transmits said first connection information to said management computer (see column 14, lines 43-50, *where the management computer receives the first information to display the connections between the object computers and storage devices implying a communication unit transmitting the first connection information to the management computer)*; and

said management computer comprises a communication unit that receives said first connection information from said storage system (see column 14, lines 43-50, *describing how the management computer receives the first information to display the connections between the object computers and storage devices*); and

a display that uses an output screen to visualize connection relationships between said storage system and computer on the basis of said first connection information (see column 14, lines 43-50, *describing how the connection relationships are displayed as a solid line between source and target devices after the appropriate ports have been connected*).

Although the system disclosed by Axberg shows substantial features of the claimed invention (discussed above), it fails to disclose visualizing existing connections, without the use of an agent program in the object computer.

Nonetheless, these features are well known in the art and would have been an obvious modification of the system disclosed by Axberg, as evidenced by McIntyre.

In an analogous art, McIntyre discloses a port-centric controller system for a computer including a plurality of network ports implemented with a plurality of network controllers and a driver system capable of operating each of the network ports and monitors the status of each of the network ports (see Abstract). McIntyre further discloses visualizing existing connections, without the use of an agent program in the object computer (see column 15, lines 34-42, *describing a visualization of an existing connection, by using an intermediate driver rather than an agent* and column 17, lines 12-32, *describing another visualization of the ports where the visualization shows specific port numbers that are in use*).

Given the teaching of McIntyre, a person having ordinary skill in the art would have readily recognized the desirability and advantages of modifying Axberg by employing visualization of ports without the use of agent program, such as disclosed by McIntyre, in order to easily determine if there has

been a hardware failure with one of the ports or to determine which port is being used for each connection.

As per claim 2, Axberg further discloses that the first connection information further contains information representing a communications protocol adapted for data communications between connected communication ports or information representing a state of a communications link between communication ports (see column 13, lines 44-49, *describing a communications protocol representing a state of a communications link between communication ports by confirming whether a hypothetical connection to the current device object at the port object would violate any network constraint).*

As per claim 3, Axberg further discloses that the acquisition unit included in said storage system acquires said first connection information when a data communications link is established between the communications ports of said object computer and said storage system respectively (see column 9, lines 13-25 and column 14, lines 43-50 showing how the first information is acquired to display the connection information as a solid line).

As per claim 4, Axberg further discloses an interconnection device (see all devices connected to a common communication carrier, bus - Axberg column 5 lines 14-16). connected to each of said object computer and said storage system (see various components - Axberg column 5 line 46-47), wherein: said acquisition unit included in said storage system acquires said first connection information (see network class - column 8 lines 1-4) and said second connection information (see NetworkResource class - Axberg column 8 lines 9-12) representing the connection relationships between said object computer and storage system from said. interconnection device (see serves as base class for Host, Bus and device class - Axberg column 8 lines 9-12); said communication unit included in said storage system transmits both said first connection information and said second connection information to said management computer (see connection class and bus - Axberg column 9 lines 8-9); said communication unit (see Network storage I/O controllers and bus - Axberg column 6 lines 35-37) included in said management computer receives both said first connection information and said second connection information from said storage system (see communication links - Axberg column 6 lines 35-40); and said display included in said management computer (see visual display - Axberg column 7 lines 27- 30) uses the output screen thereof to visualize

the connection relationships (see Axberg figure 12a-e) among said storage system, said object computer, and said interconnection device on the basis of said first connection information and said second connection information (see interconnecting relationships - Axberg column 7 lines 27- 30).

As per claim 5, Axberg further discloses an interconnection device (see all devices connected to a common communication carrier, bus - Axberg column 5 lines 14-16) connected to each of said object computer and said storage system (see various components - Axberg column 5 lines 46-47), wherein: said management computer further comprises an acquisition unit (see NetworkImages class - Axberg column 7 lines 51-52) that acquires second connection information (see objects - Axberg column 7 lines 52-55), which represents the connection relationships between said object computer and said storage system, from said interconnection device (see create objects - Axberg column 7 lines 62-63; objects include the computer or host, the storage); and said display (see visual display - Axberg column 7 lines 27-30) uses the output screen thereof to visualize the connection relationships (see Axberg figure 12a-e) among said storage system, said object computer, and said interconnection device on the basis of said first connection information and said second connection information (see interconnecting relationships - Axberg column 7 lines 27-30).

As per claim 6, Axberg further discloses that the connection relationships between said storage system and said computer have changed (see connection – Axberg column 13, lines 60-62), said display included in said management computer uses the output screen thereof to visualize (see the screen representation – Axberg column 13, lines 62-65) the connection relationships between said storage system and said object computer on the basis of said first connection information that has been modified (see connection – Axberg column 14, lines 4-7).

As per claim 7, Axberg further discloses said management computer includes a user interface via which a user-entered value is received (see user specifies - Axberg column 12 lines 15-17); and said display included in said management computer uses the output screen (see the display screen - Axberg column 11 lines 7-10) thereof to visualize the connection relationships between said storage system and said object computer on the basis of said entered value and said first connection information (see management program creates appropriate objects to represent devices - Axberg column 11 lines 34-40).

Response to Arguments

3. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHILIP J. CHEA whose telephone number is (571)272-3951. The examiner can normally be reached on M-F 6:30-4:00 (1st Friday Off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Glenton B. Burgess/
Supervisory Patent Examiner, Art Unit 2153

Philip J Chea
Examiner
Art Unit 2153

PJC 8/26/08